

REMARKS

This Amendment is filed in response to the Office Action mailed June 26, 2007.
All objections and rejections are respectfully traversed.

Claims 1-21 are pending in the case.

Claims 1, 6, 8, 9, 10, 12, 13, 14, 19, and 21 have been amended.

No new claims have been added.

Claim Objections

At paragraph 3 of the Office Action, claims 8, 9 and 12 were objected to in relation to the phrase “adapted to.” The Applicant has amended the claims to read “configured to,” to make clear that the claims are intended to recite positive limitations. Accordingly, the Applicant respectfully requests the objection be withdrawn.

Claim Rejections 35 U.S.C. §112, second paragraph

At paragraph 4 of the Office Action, claims 6 and 19 were rejected in relation to antecedent basis. Claims 6 and 19 have been amended and the Applicant respectfully urges that they have proper antecedent basis.

Claim Rejections 35 U.S.C. §101

At paragraph 5-6 of the Office Action, claims 1-20 were rejected as directed to non-statutory subject matter, specifically, an abstract idea. The Applicant respectfully urges that the claims are not directed to an abstract idea, but rather to systems and methods that produce concrete, useful and tangible results.

For example, claim 1, representative in part of the other rejected claims, recites (emphasis added):

1. A method for efficiently searching a hash table containing a plurality of ranges, the method comprising:

performing one or more preliminary range checks on at least one target value, each preliminary range check generating an output value having a value dependent on whether the target value is included in a predefined range of values associated with the preliminary range check;

combining signature information with the output values generated by the preliminary range checks to generate a modified signature;

applying a predetermined function to the modified signature to derive an index that references a hash-table entry in the hash table;

locating a searchable data structure associated with the hash-table entry referenced by the index, the searchable data structure comprising one or more search nodes, at least one of the search nodes configured to store one or more target-value ranges associated with the target value;

searching the search nodes in the searchable data structure until a matching search node is found whose stored target-value ranges associated with the target value include the target value; and

providing information associated with the matching search node.

The Applicant's claimed technique searches a searchable data structure, finds a matching search node, and then provides ***information associated with the matching search node,*** for example to another component. The provided information is concrete, tangible and useful for many purposes. For example, the Applicant respectfully directs the Examiner's attention to dependent claim 6 which provides an example of one possible use of the information. Accordingly, the Applicant respectfully requests reconsideration of the rejection.

At paragraphs 7-8 of the Office Action, claim 21 was rejected as directed to non-statutory subject matter, specifically, to a computer program per se. The Applicant respectfully requests reconsideration of this rejection. Claims 21 is not directed to computer instructions in the abstract (i.e., to computer instructions per se), but instead claims ***a computer-readable media including instructions for execution by a processor.*** A computer readable media is a tangible structure. MPEP 2106.01(I) specifically provides for computer-readable media claims in the format presented by the Applicant, and states:

.... a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and func-

tional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions.

Accordingly, in light of MPEP 2106.01(I), the Applicant respectfully requests reconsideration of this rejection.

Claim Rejections 35 U.S.C. §112, first paragraph

At paragraphs 6 of the Office Action, claims 1-20 were rejected under 35 U.S.C. §112, first paragraph in relation to the utility requirement.

At paragraphs 9 of the Office Action, claim 21 was rejected under 35 U.S.C. §112, first paragraph in relation to the utility requirement.

The Applicant respectfully requests reconsideration of these rejections as one of skill in the art would readily see the specific and substantial utility of the Applicant's claimed invention. As the Applicant discusses in the background section of the Application, many prior systems implemented hash tables that needed to be searched for a variety of different reasons. *See* specification page 4, line 1 to page 5, line 9. Prior to the applicant's invention, there was "a need for a faster, more efficient technique to locate one or more desired ranges in a hash table, without having to traverse as many entries as conventionally required." *See* page 6, lines 3-5. The Applicant claims a more efficient technique for searching a hash table that has several advantages over prior systems. One of skill in the art would readily understand that the Applicant's novel techniques may be used in place of prior techniques to obtain improved search efficiency. Accordingly, the Applicant respectfully requests that any rejections relating to lack of utility be withdrawn.

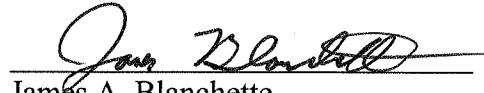
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Should the Examiner believe a telephonic interview would be helpful in the disposition of this Application, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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